

# Irish Water Report

Appropriate Assessment Screening as part of the Dripsey  
Discharge Licence Review D0426

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# Introduction

This report provides an Appropriate Assessment (AA) screening of the proposed operational discharges from the new Dripsey WwTP, County Cork. It assesses whether the discharge activity (*i.e.*, Primary Discharge & 2 no. SWOs from the new WwTP), alone or in combination with other plans and projects, are likely to have significant effects on a European Site(s) in view of best scientific knowledge and the conservation objectives of the site(s). European Sites are those identified as sites of European Community importance designated as Special Areas of Conservation under the Habitats Directive or as Special Protection Areas under the Birds Directive.

This AA Screening has been completed by Dr. Suvi Harris, MCIEEM, of Nicholas O'Dwyer Ltd. on behalf of Irish Water and contains the information required by the competent authority (in this case the EPA), to undertake an Appropriate Assessment Screening of the discharge activity in accordance with Regulation 42(1) of the European Communities (Birds and Natural Habitats) Regulations 2011.

## Legislative Context

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as "The Habitats Directive", provides legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. These are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/ECC) as codified by Directive 2009/147/EC.

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites (also known as European sites) (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment (AA):

*Any plan or project not directly connected with or necessary to the management of the [European] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.*

Article 6(4) states:

*If, in spite of a negative assessment of the implications for the [European] site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.*

# Methodology

## Scope

The scope of this Appropriate Assessment (AA) Screening Report is to determine the likelihood of significant effects, if any, that the operational discharges from the new Dripsey WwTP could have on European sites.

## Desk Study

A desk study was carried out to collate information available on European sites within the potential zone of influence of the operational discharges. The surrounding area were viewed using existing available satellite and street view imagery (last accessed on 24 November 2021). Cork County Council planning portal was accessed for information on planning applications in the immediate area, upstream and downstream of the operational discharges (last accessed 24 November 2021). The National Parks and Wildlife Service (NPWS) and National Biodiversity Data Centre (NBDC) websites (both last accessed 24 November 2021) were accessed for information on European sites.

## Screening Approach

The approach to preparing this AA screening report is as follows:

- Identify European sites, within the potential zone of influence of the operational discharges.
- Identify the features of interest of the European sites and review their conservation objectives.
- Review whether there is potential for the features of interest to be affected by the discharges.
- Consider the likelihood of significant effects occurring based on the information collated and professional judgement.
- Identify the likelihood of significant effects in the absence of mitigation, alone or in – combination, on European sites occurring because of the operational discharges.
- Screening conclusion.

The approach taken in preparing this document is based on standard methods and best practice guidance, as listed below.

## Guidance Followed

Both EU and national guidance exists in relation to Member States fulfilling their requirements under the EU Habitats Directive, with particular reference to Article 6(3) and 6(4) of that Directive. The methodology followed in relation to this AA has had regard to the following guidance:

- Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of Environment, Heritage and Local Government, (DoEHLG, 2010).
- Circular L8/08 – Water Services Investment and Rural Water Programmes – Protection of Natural Heritage and National Monuments. Department of Environment, Heritage and Local Government, (DoEHLG, 2008).

- Communication from the Commission on the Precautionary Principle. Office for Official Publications of the European Communities, Luxembourg, (EC, 2000a).
- Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg, (EC, 2000b).
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC (Commission Notice C(2018) 7621 final, Brussels, 21.11.2018)
- Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC. Office for Official Publications of the European Communities, Brussels (EC, 2001).
- Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the Commission. Office for Official Publications of the European Communities, Luxembourg, (EC, 2007).
- Guidelines for Good Practice, Appropriate Assessment of Plans under Article 6(3) Habitats Directive (International Workshop on Assessment of Plans under the Habitats Directive, 2011)
- Guidance Document on Article 6(4) of the Habitats Directive 92/43/EEC. Clarification of the Concepts of Alternative Solutions, Imperative Reasons of Over-riding Public Interest, Compensatory Measures, Overall Coherence. Opinion of the European Commission (European Commission, January 2007)
- Nature and biodiversity cases: Ruling of the European Court of Justice. Office for Official Publications of the European Communities, Luxembourg (EC, 2006).
- Marine Natura Impact Statements in Irish Special Areas of Conservation: A working document, National Parks and Wildlife Service, Dublin (NPWS, 2012).
- European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. No.477 of 2011).
- Interpretation Manual of European Union Habitats. Version EUR 28. European Commission (EC, 2013).

## Stages Involved in the Appropriate Assessment Process

The competent authority is required to carry out appropriate assessment, as required by Article 6(3) and 6(4) of the Habitats Directive, as follows:

- **Stage 1: Screening for Appropriate Assessment**

The first step to establishing if an appropriate assessment is required is referred to as 'screening' and its purpose is to determine, in view of best scientific knowledge, on the basis of a preliminary assessment and objective criteria if the plan or project, alone or in combination with other plans or projects, could have a significant effect on a European site in view of the sites conservation objectives. The process identifies any likely impacts upon a European site, either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant.

- **Stage 2: Appropriate Assessment**

This is required if it cannot be excluded, on the basis of objective information, that the development, individually or in combination with other plans or projects, will have a significant effect on a European site.

The appropriate assessment must include a final determination by the competent authority as to whether or not a proposed development would adversely affect the integrity of a European site. In order to reach a final determination, the consenting authority must undertake examination, analysis, and evaluation, followed by findings, conclusions, and a final determination. The appropriate assessment must contain complete, precise, and definitive findings and conclusions, and may not have lacunae or gaps.

Additionally, where there are deemed to be adverse impacts, an assessment of the potential mitigation of those impacts is considered.

- **Stage 3: Assessment of Alternative Solutions**

This stage examines alternative means of achieving the objectives of the project or plan that aim to avoid adverse impacts on the integrity of the European site.

- **Stage 4: Assessment where no alternative solutions exist and where adverse impacts remain**

This stage is the main derogation process outlined in Article 6(4) which examines whether there are imperative reasons of overriding public interest (IROPI) for allowing a plan or project, which will have adverse effects on the integrity of a European site, to proceed.



construction of the new Dripsey WwTP was completed in November 2021 and is scheduled to be fully commissioned in Q1 2022.

As part of the upgrade project, remedial network upgrade works have been completed. This work will have the following benefits to the agglomeration: (i) mitigate risk of hydraulic impact to the WWTP; (ii) mitigate risk of dilution of biological load damaging WWTP process; (iii) retain additional reserve storage capacity in foul network; and (iv) reduce overflows from the stormwater overflows.

### **Operational Discharges**

#### **Primary Discharge (SW001)**

Treated effluent from the new WwTP will discharge to the Dripsey River at NGR 148611E, 074819N. The primary discharge will be monitored continuously and recorded at the electromagnetic flowmeters which will be installed at the WwTP.

The proposed effluent standards for the new WwTP are tabled below and are in compliance with the WWDL D0426-01 ELVs.

**Table 1.0 - Effluent Standards for New WwTP (as per D0426-01,ELVs)**

<b>Parameter</b>	<b>ELV</b>	<b>Units</b>
pH	6.9	pH units
BOD, 5 days with Inhibition (Carbonaceous BOD)	25	mg/l
COD-Cr	125	mg/l
Suspended Solids	35	mg/l
Ammonia-Total (as N)	10	mg/l
Ortho-Phosphate (as P)	5	mg/l

#### **Storm Water Overflows from new WwTP (SW002 & SW003)**

There will be 2 no. SWOs from the new WwTP. SW002, from the inlet stormwater overflow chamber and SW003 from the Storm Tank 2, will both discharge to the Dripsey River *via* the primary discharge outfall at River at 148611E, 074819N.

Both overflows have been designed in compliance with the definition of 'Storm Water Overflow' as per Regulation 3 of the Waste Water Discharge (Authorisation) Regulations, 2007, as amended and the criteria as set out in the DoEHLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995.

The SWOs will be monitored continuously and recorded at the electromagnetic flowmeters which will be installed at the WwTP.

There are no emergency overflows from the agglomeration.

### **Description of the Surrounding Environment**

Dripsey WwTP discharges to the Dripsey River (Dripsey\_020). Dripsey\_020 is within the Lee, Cork Harbour and Youghal Bay Catchment (Hydrometric Area 19). This catchment includes the area drained by the River Lee and all streams entering tidal water in Cork Harbour and Youghal Bay and between Knockaverry and Templebreedy Battery, Co. Cork, draining a total area of 2,153 km<sup>2</sup>. The draft 3rd cycle Catchment Report (2021) for this hydrometric area, determined that for river waterbodies excess nutrients remain the most prevalent issue, along with morphology, organic



pollution, and hydrology. Pressures identified affecting the greatest number of waterbodies within Hydrometric Area 19 include hydromorphology, followed by agriculture, urban run-off, urban wastewater, domestic waste water, forestry, mines and quarries and industry. Dripsey WwTP is not listed as a significant pressure in At Risk waterbodies in the 2<sup>nd</sup> or draft 3<sup>rd</sup> cycle catchment assessment. The Dripsey\_020 is not listed as an area for action under the 3<sup>rd</sup> cycle. The WFD status of the Dripsey\_020 is Good and At Risk. Significant pressures for the Dripsey\_020 have been determined, within the draft 3<sup>rd</sup> cycle Catchment Report, as Hydromorphology (overgrazing).

The receiving water of the effluent from the Dripsey WwTP is the Dripsey River (WFD Code: Dripsey\_020), which is a tributary of the River Lee.

The Dripsey River is not designated a salmonid waterbody however the Lee River which the Dripsey River flows into, ca. 1.5 km downstream, is designated Salmonid. The Dripsey River (below the agglomeration discharge point) has achieved Q4-5 (High, Unpolluted) status from 2011-2020.

The River Water Quality (WFD Status 2013-2018) upstream and downstream of the current WwTP discharge is Good status; Dripsey\_020. The WFD 2027 objective for this waterbody is High.

Results from ambient monitoring undertaken by IW upstream and downstream of the new primary discharge location (NGR 148611E, 074819N) are shown in **Table 2.0** and **Table 3.0** below. The upstream location is at Dripsey Castle Bridge (NGR 147700E, 075502N) and downstream location is at Dripsey Bridge (NGR 148775E, 073890N).

**Table 2.0 Ambient monitoring upstream - Station RS19D060340 (Data Source: EDEN Compliance Jan 2019 - June 2021 Data)**

Parameter	pH	BOD	Ortho-P (mg/l)	Total Ammonia (mg/l)	DO (mg/l)	DO (%sat)	Temp (°C)
Number of Samples	12	12	12	12	13	14	11
Max result	7.7	2.5	0.084	0.702	13.9	114	4.3
Min result	7.2	0.1	0.015	0.01	9.5	93	2.4
Average result	7.48	0.98	0.035	0.0784	11.07	99.9	3.5
Mean EQS as per S.I. No. 77/2019 Good Status *		≤1.5	≤ 0.035	≤0.065			
Mean EQS as per S.I. No. 77/2019 High Status *		≤1.3	≤ 0.025	≤0.04			

Parameter	pH	BOD	Ortho-P (mg/l)	Total Ammonia (mg/l)	DO (mg/l)	DO (%sat)	Temp (°C)
Overall compliance with relevant EQS Good Status *		Yes	Yes	No			
Overall compliance with relevant EQS High Status *		Yes	No	No			

\*Mean High & Good status under S.I. No. 77 of 2019

Note: Where data was reported as less than the limit of detection, LOD/2 was applied

**Table 3.0 Ambient monitoring upstream - Station RS19D06040 (Data Source: EDEN Compliance Jan 2019 - June 2021 Data)**

Parameter	pH	BOD	Ortho-P (mg/l)	Total Ammonia (mg/l)	DO (mg/l)	DO (%sat)	Temp (°C)
Number of Samples	12	12	12	12	13	13	11
Max result	8.1	2.6	0.101	0.289	13	115	4.9
Min result	7.4	0.5	0.012	0.01	9.6	95	2.6
Average result	7.70	1.00	0.041	0.0488	11.05	101.6	3.8
Mean EQS as per S.I. No. 77/2019 Good Status *		≤1.5	≤ 0.035	≤0.065			
Mean EQS as per S.I. No. 77/2019 High Status *		≤1.3	≤ 0.025	≤0.04			
Overall compliance with relevant EQS Good Status *		Yes	No	Yes			
Overall compliance with relevant EQS High Status*		Yes	No	No			

\*Mean High & Good status under S.I. No. 77 of 2019

Note: Where data was reported as less than the limit of detection, LOD/2 was applied

Based on ambient monitoring results upstream and downstream of the current discharge for the period between January 2019 to June 2021, the mean concentration for BOD is within the mean EQSs for Good and High status. In terms of Ortho-P, the mean concentration only meets the mean EQS for Good status upstream of the discharge. In terms of Ammonia, the mean concentration only meets the mean EQS for Good status downstream of the discharge.

It is worth noting that the Dripsey\_020 waterbody trends (at Drispey Br, downstream of the operational discharges) for Ortho-P and Total Ammonia for 2013-2018 are Downwards (decreasing concentrations). For 2013-2018, Ammonium and Ortho-P are noted as High status under the WFD.

### **Waste Assimilative Capacity**

A WAC calculation was carried out by the EPA inspector in 2012 using Notional Clean River values and the design capacity of 600 p.e. (135m<sup>3</sup>/day). ELVs were set for BOD, Total Ammonia and Ortho-P in order to maintain the Good status of the Dripsey River as per the requirements of the European Communities Objectives (Surface Water) Regulations, 2009, as amended (now S.I. No. 77 of 2019). These limits came into effect from the 30<sup>th</sup> July 2012 as per D0426-01.

To inform the licence review, WAC calculations were completed using the ELVs as per D0426-01, the Notional Clean River background concentrations and the actual mean background concentrations based on January 2019 to June 2021 ambient monitoring data, and the EPA Flow Estimation of 0.4m<sup>3</sup>/s (Flow data confirmed by the EPA Hydrometric & Groundwater Section on the 12<sup>th</sup> November 2021).

For this calculation, due to the High status Objective (2027) for the Dripsey\_020, the High status EQSs for BOD, Total Ammonia and Ortho-P under S.I. No. 77 of 2019 were used, unlike the Good status EQSs which were used by the EPA in 2012.

It is important to reiterate again at this stage that the Dripsey WwTP is not listed as a significant pressure in At Risk waterbodies in the 2<sup>nd</sup> and draft 3<sup>rd</sup> cycle catchment assessments. The significant pressure for the Dripsey\_020 has been determined as Hydromorphology (overgrazing). The discharge from the Dripsey WwTP will not contribute to this significant pressure, and its resultant adverse effects on this waterbody.

It was important to determine if the discharge from the new Dripsey WwTP on its own is likely to cause a deterioration in the current status of the Dripsey\_020 or if the discharge will impede the river achieving its High WFD status Objective by 2027. This was determined using the Notional Clean River approach.

When the notional clean background approach (*i.e.*, BOD 0.26mg/l, Total Ammonia 0.008mg/l & Ortho-P 0.005mg/l) was applied, the resultant downstream concentrations for BOD, Total Ammonia and Ortho-P comply with the relevant High status EQSs for each parameter (see **Table 4.0**).

Based on the mean actual background concentrations, the WAC calculations shows that there would be sufficient assimilative capacity in the receiving water to receive flows and loads in terms of BOD. For both Ammonia and Ortho-P however, resultant concentrations of 0.117mg/l and

0.054mg/l respectively are predicted downstream, both of which are above the relevant High status EQSs (see **Table 5.0**).

It is worth noting that in terms of the current Good status EQSs (current WFD status of the Dripsey\_020 waterbody), the resultants downstream concentrations for BOD, Total Ammonia and Ortho-P are well within the Good status EQSs based on the actual mean background concentrations (January 2019 to June 2021) (see **Table 6.0**).

**Table 4.0 - WAC for 600 p.e. - Notional Clean River Background & High Status EQSs**

Parameter	Upstream River Conc <sup>Note 1</sup>	ELV	Contribution from Primary Discharge (mg/l)	Predicted D/S Conc (mg/l)	Relevant Standard (mg/l) (HIGH Status)
BOD	0.260	25	0.097	0.36	≤2.2 <sup>Note 1</sup>
Ortho-Phosphate (MRP)	0.005	5	0.019	0.024	≤0.045 <sup>Note 1</sup>
Total Ammonia	0.008	10	0.039	0.047	≤0.09 <sup>Note 1</sup>

**Note 1:** Based on grab sampling carried out between 2019-2021.

**Note 2:** European Union Environmental Objectives (Surface Waters) (Amendment). Regulations 2019 (S.I. No. 77 of 2019)

**Table 5.0 - WAC for 600 p.e. - Mean Ambient Background (January 2019 to June 2021 Data) & High Status EQSs**

Parameter	Upstream River Conc <sup>Note 1</sup>	ELV	Contribution from Primary Discharge (mg/l)	Predicted D/S Conc (mg/l)	Relevant Standard (mg/l) (HIGH Status)
BOD	0.975	25	0.097	1.072	≤2.2 <sup>Note 1</sup>
Ortho-Phosphate (MRP)	0.035	5	0.019	0.054	≤0.045 <sup>Note 1</sup>
Total Ammonia	0.078	10	0.039	0.117	<0.09 <sup>Note 1</sup>

**Note 1:** Based on grab sampling carried out between 2019-2021.

**Note 2:** European Union Environmental Objectives (Surface Waters) (Amendment). Regulations 2019 (S.I. No. 77 of 2019)

**Table 6.0 - WAC for 600 p.e. - Mean Ambient Background (January 2019 to June 2021 Data) & Good Status EQSs**

Parameter	Upstream River Conc <sup>Note 1</sup>	ELV	Contribution from Primary Discharge (mg/l)	Predicted D/S Conc (mg/l)	Relevant Standard (mg/l) (GOOD Status)
BOD	0.975	25	0.097	1.072	≤2.6 <sup>Note 1</sup>
Ortho-Phosphate (MRP)	0.035	5	0.019	0.054	≤0.075 <sup>Note 1</sup>
Total Ammonia	0.078	10	0.039	0.117	<0.14 <sup>Note 1</sup>

**Note 1:** Based on grab sampling carried out between 2019-2021.

**Note 2:** European Union Environmental Objectives (Surface Waters) (Amendment). Regulations 2019 (S.I. No. 77 of 2019)

In summary, based on the Notional Clean River approach, the ELVs as per D0426-01 will ensure that the discharge from the Dripsey WwTP contributes towards maintaining at least Good status of the Dripsey\_020 and contributes towards achieving its High WFD status Objective by 2027 in accordance with the European Union Environmental Objectives (Surface Waters) (Amendment) Regulations 2019 (S.I. No. 77 of 2019) and will ultimately ensure that there is no environmental risk posed to the receiving water environment as a result of the discharge from the new WwTP.

## Identification of European Sites

A 15 km buffer zone has been chosen along with identifying any other receptor pathways (*i.e.*, rivers, streams, or ecological corridors) as a precautionary measure, to ensure that all potentially affected European sites are included in the screening process, which is in line with Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities produced by the Department of the Environment, Heritage and Local Government.

**Table 7.0** lists the European sites within 15 km of the Dripsey WwTP operational discharges and those that are connected downstream *via* a source – pathway – receptor connection. **Figure 2.0** shows their location in relation to the discharges.

For significant effects to arise from a proposal, there must be a risk triggered by having a 'source' (*e.g.*, in this case the WwTP operational discharges), a 'receptor' (*e.g.*, a European site or its qualifying interests), and a pathway between the source and the receptor (*e.g.*, a watercourse connecting the discharges to a European site). It is important to note that the identification of a pathway does not automatically mean that significant adverse effects will arise. The likelihood for significant effects depend upon the characteristics of the source, the characteristics of the pathway (*e.g.*, water quality status of watercourse) and the characteristics of the receptor (*e.g.*, the sensitivities of the European site and its qualifying interests).

**Table 7.0: European sites within 15 km of the new Dripsey WwTP operational discharges and those that are connected downstream via a source – pathway – receptor connection**

Site Code	Site Name (approx. distance from proposal)	Qualifying Interest
000108	The Gearagh SAC (approx. 14.75km, direct distance & ca. 26km upstream of operational discharges area)	Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260] Rivers with muddy banks with <i>Chenopodium rubri</i> p.p. and <i>Bidention</i> p.p. vegetation [3270] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0] <i>Lutra lutra</i> (Otter) [1355]
004109	The Gearagh SPA (ca. 16.2 km (direct distance & ca. 27km upstream from operational discharges area & overlaps with boundary of The Gearagh SAC)	Wigeon ( <i>Anas penelope</i> ) [A050] Teal ( <i>Anas crecca</i> ) [A052] Mallard ( <i>Anas platyrhynchos</i> ) [A053] Coot ( <i>Fulica atra</i> ) [A125] Wetland and Waterbirds [A999]
004030	Cork Harbour SPA (ca. 30km downstream of operational discharges)	Little Grebe ( <i>Tachybaptus ruficollis</i> ) [A004] Great Crested Grebe ( <i>Podiceps cristatus</i> ) [A005] Cormorant ( <i>Phalacrocorax carbo</i> ) [A017] Grey Heron ( <i>Ardea cinerea</i> ) [A028] Shelduck ( <i>Tadorna tadorna</i> ) [A048] Wigeon ( <i>Anas penelope</i> ) [A050] Teal ( <i>Anas crecca</i> ) [A052] Pintail ( <i>Anas acuta</i> ) [A054] Shoveler ( <i>Anas clypeata</i> ) [A056] Red-breasted Merganser ( <i>Mergus serrator</i> ) [A069] Oystercatcher ( <i>Haematopus ostralegus</i> ) [A130] Golden Plover ( <i>Pluvialis apricaria</i> ) [A140] Grey Plover ( <i>Pluvialis squatarola</i> ) [A141] Lapwing ( <i>Vanellus vanellus</i> ) [A142] Dunlin ( <i>Calidris alpina</i> ) [A149] Black-tailed Godwit ( <i>Limosa limosa</i> ) [A156] Bar-tailed Godwit ( <i>Limosa lapponica</i> ) [A157]

Site Code	Site Name (approx. distance from proposal)	Qualifying Interest
		Curlew ( <i>Numenius arquata</i> ) [A160] Redshank ( <i>Tringa totanus</i> ) [A162] Black-headed Gull ( <i>Chroicocephalus ridibundus</i> ) [A179] Common Gull ( <i>Larus canus</i> ) [A182] Lesser Black-backed Gull ( <i>Larus fuscus</i> ) [A183] Common Tern ( <i>Sterna hirundo</i> ) [A193] Wetland and Waterbirds [A999]
001058	Great Channel Island SAC (ca. 34km downstream of operational discharges)	Mudflats and sandflats not covered by seawater at low tide [1140] Atlantic salt meadows ( <i>Glaucopuccinellietalia maritima</i> ) [1330]

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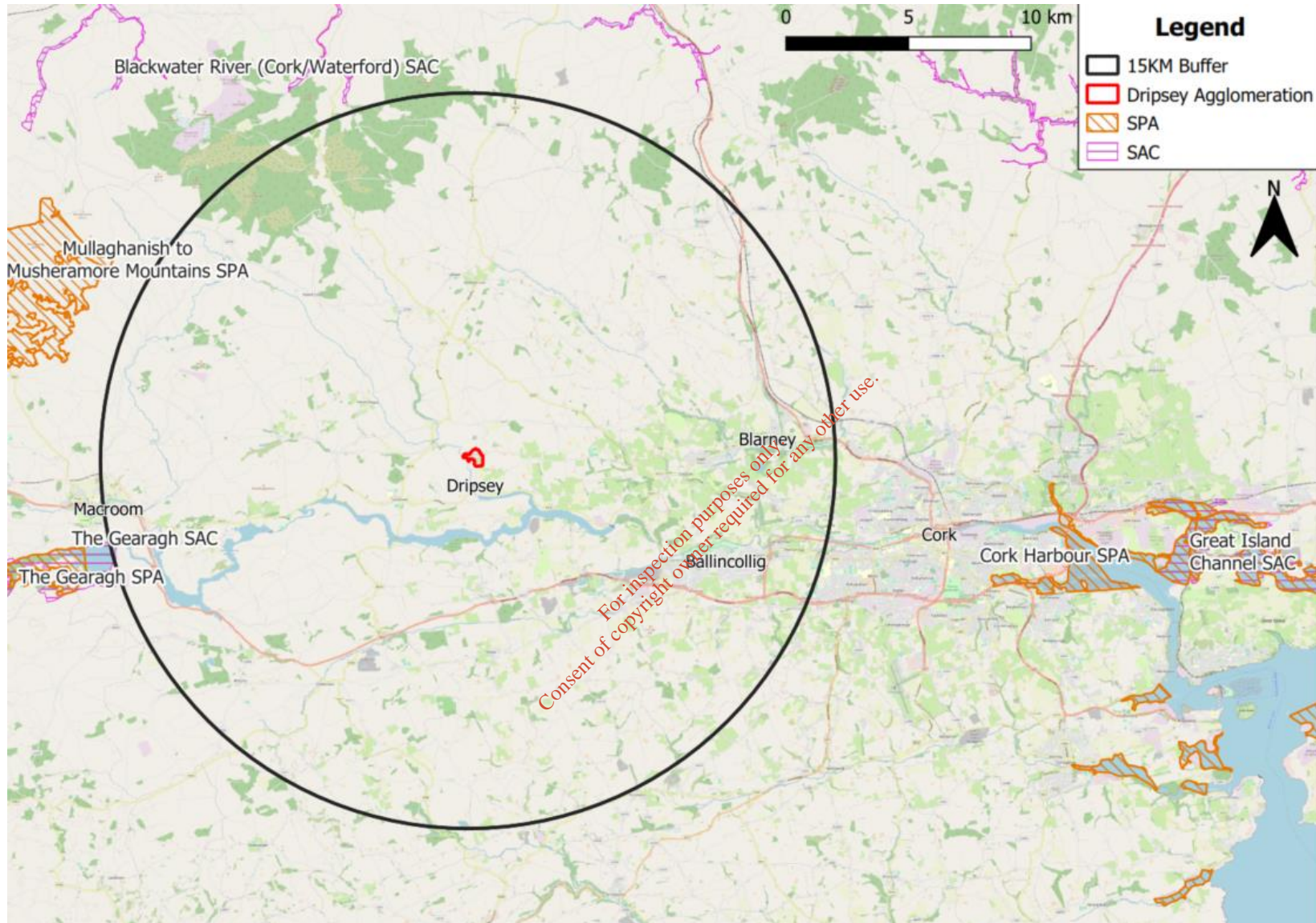


Figure 2.0: Proximity of Dripsey Agglomeration to European Sites



## Assessment of Likely Significant Effects

The purpose of this section of the screening is to examine the possibility of likely significant effects, either individually or in combination with other plans and projects, that may result in significant negative effects on the Conservation Objectives of the identified European sites.

### Direct, Indirect or Secondary Impacts

Land take within a European site is not a component of this proposal; therefore, no direct impacts could occur through land take or fragmentation of habitats.

The Dripsey WwTP and its primary effluent discharge (SW001) have been designed to meet the standards to satisfy all relevant regulatory requirements including the Surface Water Regulations (S.I. No. 77 of 2019) and the Urban Wastewater Treatment Regulations (S.I. No. 254 of 2001). The Storm Water Overflows (SW002 and SW003) have been designed in compliance with the definition of 'Storm Water Overflow' as per Regulation 3 of the Waste Water Discharge (Authorisation) Regulations, 2007, as amended and the criteria as set out in the DoEHLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995.

The ELVs as per D0426-01 will ensure that the discharge from the new Dripsey WwTP contributes towards maintaining at least Good status of the Dripsey\_020 and contributes towards achieving its High WFD status Objective by 2027 in accordance with S.I. No. 77 of 2019. In addition, network remedial upgrade works have been completed and adequate storm water storage facilities are provided within the agglomeration. Based on this information, and the WAC calculations above, it is considered that the operational discharges from the Dripsey WwTP will not have a detrimental impact on the water quality of the River Dripsey.

There are no European sites immediately downstream of the operational discharges. The nearest European site downstream is the Cork Harbour SPA which is located ca. 30 km downstream of the agglomeration. The Great Channel Island SAC is located ca. 34 km downstream. Due to the distance of these sites from the operational discharges and the large dilution capacity of the River Lee (of which the Dripsey River is a tributary), it is considered that there is no likelihood of significant effects from the operation discharges on the Qualifying Interests of these sites (including *ex-situ* species).

The nearest European sites to the agglomeration are The Gearagh SAC and The Gearagh SPA located ca. 26 km and 27 km upstream of the operational discharges on the River Lee (*i.e.*, upstream of the confluence with the River Dripsey). It is considered that no direct or indirect effects are likely on the species/habitats of The Gearagh SAC or The Gearagh SPA due to the sites distance upstream of the proposed operational discharges.

In terms of *ex-situ* species from the Gearagh SAC, stretches of the riparian margins upstream and downstream of the WwTP outfall has the potential to support otter. Water pollution represents one of the principal threats to otter populations in Ireland (Reid *et al.*, 2013). Otters can tolerate significant levels of pollution (Chanin, 2003; Bailey & Rochford, 2005; Romanowski *et al.*, 2012) but poor water quality tends to result in reduced numbers and variety of fish species which in turn will have a negative impact on otter presence in polluted waterways. Any change in water quality, could potentially have indirect negative effects on otters, as a result of reduced food supply and

habitats. However, in this instance based on the current Good WFD status of the receiving water body, the Dripsey\_020 waterbody trends, and the 2013-2018 Ammonium and Ortho-P High status under the WFD, the WAC calculations above, along with the SWOs being designed in compliance with the definition of 'Storm Water Overflow' as per Regulation 3 of the Waste Water Discharge (Authorisation) Regulations, 2007, as amended and the criteria as set out in the DoEHLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995, it is considered that the operational discharges from the Dripsey WwTP will not have a detrimental impact on the water quality of the River Dripsey and any potential *ex-situ* otter species frequenting the area.

The Dripsey River provides suitable habitat for populations of wigeon, teal, mallard, and coot, which are species of Qualifying Interest for the Gearagh SPA. For the reasons outlined above, it can be confidently concluded that the operational discharges from the Dripsey WwTP will not have a detrimental impact on the water quality of the River Dripsey and any potential *ex-situ* birds species frequenting the area.

### **Cumulative and in Combination Impacts**

Cumulative impacts are incremental changes in the environment that result from numerous manmade small-scale alterations. In-combination impacts can result from individually minor but collectively significant changes taking place over a period of time. The consequences of these changes are defined as in combination effects.

It is not anticipated that the operational discharges will result in any impacts on any European site.

Cumulative impacts resulting from proposals of this nature relate primarily to the potential for disturbances to key qualifying interests/features of a site and the degradation of water quality, both of which have the potential to have significant effects on the conservation objectives of European sites.

The proposal will treat the effluent to a high standard. The River Water Quality Status: 2013-2018 upstream and downstream of the WwTP is Good (Dripsey\_020). The proposed effluent standards will have a cumulative effect of firstly maintaining the Good water quality status of the receiving waterbody and contributing towards achieving the High WFD status objective by 2027.

### **Cork County Development Plan 2022-28**

The Cork County Development Plan 2022-28 contains environmental policies and objectives to protect European sites and the aquatic environment in County Cork. Key environmental protection objectives include the following:

#### **BE 15-2 Protect sites, habitats, and species**

a) Protect all natural heritage sites which are designated or proposed for designation under European legislation, National legislation, and International Agreements. Maintain and where possible enhance appropriate ecological linkages between these. This includes Special Areas of Conservation, Special Protection Areas, Marine Protected Areas, Natural Heritage Areas, proposed Natural Heritage Areas, Statutory Nature Reserves, Refuges for Fauna and Ramsar Sites. These sites are listed in Volume 2, Appendix A of the Plan.

### **WM 11-1: EU Water Framework Directive and the River Basin Management Plan**

- a)** Protect and improve the County's water resources and ensure that development permitted meets the requirements of the River Basin Management Plan and does not contravene the objectives of the EU Water Framework Directive.
- b)** Promote compliance with the River Basin Management Plan and associated environmental standards and objectives set out in the European Communities (Environmental Objectives) Surface Water Regulations, 2009 and the European Communities (Environmental Objectives) Groundwater Regulations, 2010, to prevent deterioration; restore good status; reduce chemical pollution, and achieve water related protected areas objectives in rivers, lakes, groundwater, estuaries, and coastal waters (as applicable).
- f)** Support the prioritisation of the provision of water services infrastructure in: Metropolitan Cork, the Key Towns and Main Towns to complement the overall strategy for economic and population growth while ensuring appropriate protection of the environment. All settlements where services are not meeting current needs, are failing to meet the requirements of the Urban Wastewater Treatment Directive, and where these deficiencies are – interfering with Councils ability to meet the requirements of the Water Framework Directive; or – having negative impacts on Natura 2000 [European] sites; and
- g)** Development may only proceed where appropriate wastewater treatment is available which meets the requirements of environmental legislation, the Water Framework Directive, and the requirements of the Habitats Directive.

### **WM 11-2: Surface Water Protection**

- a)** Protect and improve the status and quality of all surface waters throughout the County, including transitional and coastal waters.
- b)** At least secondary treatment should be provided to all wastewater discharges from any new development, to surface waters.

### **WM 11-9: Wastewater Disposal**

- a)** Require that development in all settlements connect to public wastewater treatment facilities subject to sufficient capacity being available which does not interfere with Council's ability to meet the requirements of the Water Framework Directive and the Habitats Directive. In settlements where no public wastewater system is either available or proposed, or where design, capacity or licensing issues have been identified in existing plants, new developments will be unable to proceed until adequate wastewater infrastructure is provided.
- b)** In assessing proposals for development, it is a requirement that adequate assimilative capacity in the receiving waterbody be retained so as to allow for the overall growth of the settlement.

The new WwTP will satisfy all relevant regulatory requirements including the Surface Water Regulations (S.I. No. 77 of 2019) and the Urban Wastewater Treatment Regulations (S.I. No. 254 of 2001). The proposed discharge limits for the WwTP take into account the above regulations and the WAC of the Dripsey River. This along with the proposed provision of adequate storm water storage facilities within the agglomeration, it is considered that the operation of the new WwTP and the proposed effluent discharges will not have a detrimental impact on the water quality of the Dripsey River or downstream River Lee and will aid the receiving water body in achieving its High WFD objective by 2027.

## **Planning Applications**

Cork County Council planning portal was reviewed to identify any planning applications which have been submitted and/or granted within the last 5 years (from November 2021). 105 no. applications were identified within the region of Dripsey within this time period, the majority of which were domestic dwellings. Upon review, it is considered that there is no pathway of additive effect for significant cumulative or in-combination effects which can be considered to significantly affect the qualifying interests or conservation objectives of the European sites listed in **Table 7.0** above.

## **Screening Assessment Conclusions**

This Screening for AA was undertaken to assess, in view of best scientific knowledge and the conservation objectives of European sites, if the operational discharges from the new Dripsey WwTP individually or in combination with other plans or projects is likely to have a significant effect on any European site.

The screening assessment undertaken demonstrates that the proposed operational discharges are not likely to have significant effects, in terms of maintaining favourable conservation status of the qualifying interests, on any European Sites having regard to their conservation objectives, for the following reasons.

- The Dripsey agglomeration is a small catchment area currently serving 420 p.e. with a maximum in this proposal of 600 p.e..
- The nearest downstream European site is the Cork Harbour SPA which is ca. 30 km downstream of the proposed WwTP discharges.
- The Dripsey WwTP and its primary effluent discharge (SW001) have been designed to meet the standards to satisfy all relevant regulatory requirements including the Surface Water Regulations (S.I. No. 77 of 2019) and the Urban Wastewater Treatment Regulations (S.I. No. 254 of 2001).
- The capacity of the receiving water to assimilate the discharges from the agglomeration.
- The design of the Storm Water Overflows (SW002 and SW003) in compliance with the definition of '*Storm Water Overflow*' as per Regulation 3 of the Waste Water Discharge (Authorisation) Regulations, 2007, as amended and the criteria as set out in the DoEHLG '*Procedures and Criteria in Relation to Storm Water Overflows*', 1995.
- Downstream of the WwTP at RS19D060400 (ca. 1 km downstream) a Q value of 4-5 has been reported since 2011.
- The Dripsey\_020 waterbody trends (at Dripsey Br, downstream of the operational discharges) for Ortho-P and Total Ammonia for 2013-2018 are Downwards (decreasing concentrations). For 2013-2018, Ammonium and Ortho-P are noted as High status under the WFD.

Based on the above, it has been concluded following screening that the proposed operational discharges from the new Dripsey WwTP are not directly connected with or necessary to the management of any European Site, and that it can therefore be excluded, on the basis of objective information, that the proposed discharges, individually or in combination with other plans or projects, will have a significant effect on any European Site. Therefore, it is concluded that an Appropriate Assessment and the production of a Natura Impact Statement is not required.

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